

itle: DSP-4 DUAL-SPECIFICITY PHOSPHATASE

Express Mail No. EV207699786US

Docket No. 200125.410 Inventor(s): Ralf M. Luche and Bo Wei Serial No. 09/544,517

DSP4. ENCODED BY 651 BASE PAIRS

ACATTGCATC CCTGGGATAA ACGGACCTGG ACAACTCACT CTCTTGGTCT GTGGCTGCTG CGGTTACCTG GATGGGCGAA CACCTCTGAG GCTGGCTTTG TTACCTGGGC AATAAGGGAC TAGCAGTTCA GCCGTTTTCT ATGCCTGCTG GATTTGTTTG TATTTGTTCC CAGCCACTGC TCATGTAATG TACTCCCTTA ACCAGGAAAT TAAAGCATTC TCCCGGAATA ATCTCAGGAA GCAATGCACC AGGGTGACAA CGCTAACTGG AAAGAAAATT ATAGAAACAT GGAAAGATGC CAGAATTCAT GTTGTGGAAG AAGTAGAGCC GAGCAGTGGG GGTGGTTGTG GTTATGTGCA GGACCTTAGC TCGGACCTGC AAGTTGGCGT TATTAAGCCA TGGTTGCTCC TAGGGTCACA AGATGCTGCT CATGATTTGG ATACACTGAA AAAGAATAAG GTGACTCATA TTCTTAATGT TGCATATGGA GTTGAAAATG CTTTCCTCAG TGACTTTACA TATAAGAGCA TTTCTATATT GGATCTGCCT GAAACCAACA TCCTGTCTTA TTTTCCAGAA TGTTTTGAAT TTATTGAAGA AGCAAAAAGA AAAGATGGAG TGGTTCTTGT TCATTGTAAT GCAGGCGTTT CCAGGGCTGC TGCAATTGTA ATAGGTTTCC TGATGAATTC TGAACAAACC TCATTTACCA GTGCTTTTTC TTTGGTGAAA AATGCAAGAC CTTCCATATG TCCAAATTCT GGCTTCATGG AGCAGCTTCG TACATATCAA GAGGGCAAAG AAAGCAATAA GTGTGACAGA ATACAGGAGA ACAGTTCATG AGTTGCATTG TAGCAGACAA TGGACAACTG TAGTTTCTGA ATTGACTTCT ATAGCCATCT TTTCCCTTTT TTGGAGAGTA GACTAGCAAA ACTCCCTTTT TTCTCTTGCC TTTTTTATGC ATAAATGGAG GTCAATCTGA TTGTCCTGAC CTACTGTATA AGTAAATTTC AAATGTCATT ACTTTCTCTT TGTTATTATA ATGTGTGATT AAATGCTTTT TTAAATTGCT AAGGGAAAAT AAAAAAA

Fig. 1

TRANSLATED, 217 AMINO ACIDS

MYSLNOEIKAFSRNNLRKQCTRVTTLTGKKIIETWKDARIHVVEEVEPSSGGGCGYVQDLSSDLQVGVIKPWL LLGSQDAAHDLDTLKKNKVTHILNVAYGVENAFLSDFTYKSISILDLPETNILSYFPECFEFIEEAKRKDGVV LVHCNAGVSRAAAIŸIGFLMNSEQTSFTSAFSLVKNARPSICPNSGFMEQLRTYQEGKESNKCDRIQENSS

Fig. 2

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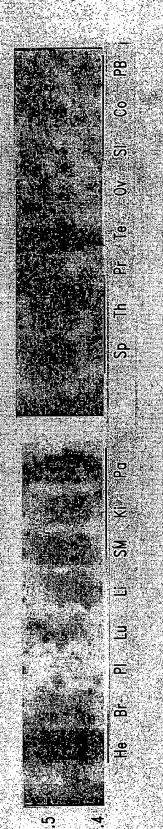
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	70	NYTPNLPNLFENGGEFYKOTPISOHUSON, SOFFPERISF LNYTPNLPNRFEHGGEFYKOTPISOHUSON, SOFFPERISF LNSSNSCPKP-OFICESRFMRVPINONYCEKLLPNLOKSIEF NVSRSCPNHFE-GLFHYKSIPVEONQNVEISNNFOERISF INVSRNCPNHFE-GHYQYKSIPVEONHKROISSHFNERIDF		170 175	TLGLSS TLGLSS TLKLA	QVLRTS QVLRTS	GKESNKCOR
	09	KYIL NYTPNL PNL FENGGEFYKGITPISONUSGNL SQFFPERISF KYIL NYTPNL PNAFENGGEFTYKQIPISONUSGNL SQFFPERISF SYVLNASNSCPKP-OFICESRFMRVPINONYCEKLL PNL OKSIEF TRYLNYSASCPNHFE-GLFHYKSIPVEONQNVEISANFGERISF TRLINYSANCPNHFE-GHYKSIPVEONGNVEISANFGERIDF		160	FMGQLLOFER FMGQLLOFER FLGQLLEYER FMGQLLEYER		ICPNSGFMEDLRTYQUE SPINF FREQUENTY
	50	YLGCHKOSTNL DVLEEFGIKYIL NYTPNL PNL FENRGEFKYKOIPISOHUSONL SOFFPERISFYLGCRKOSTNL DVLEFFGIKYIL NYTPNL PNRFEHGGEFTYKOIPISOHUSONL SOFFPERISFYLGSQKDYLNKOL MTQNGISYULNGSNSCPKP-OFICESRFMRVPINDNYCEKLL PNL DKSIEFYLGSCNIISSILQGLOACGITRVLNYSRSCPNHFE-GLYKKSIPVEDNQNYEISNNFQERISFYLGSGYHRSKDHLOALGITRL INYSANCPNHFE-GLYQYKSIPVEDNHKROISSHFRERIDFYLGSGYHRSKDHLOALGITRL INYSANCPNHFE-GLYQYKSIPVEDNHKROISSHFRERIDF	TLGSRTHRIKKURLUNLGIJH LINYSSULFNHF YLGSRYHRSKCEFLANLHITMLLNYSRRTSERC LLGSQDHRHDLDTLKKNKYTHII NYRYGVENF YLGS a 1# \$ g!C LNvs pn f	150	SANDAYDIYKKKSNISPNFNFNGQLIOFERTLGLSS SLNOAYDFVKRKSNISPNFNFNGQLIOFERTLGLSS ISSDDAYRFVKDRRPSISPNFNFLGQLLEYERTLKLA	ALDERFEFVKORRSTISPNFSFNGOLLOFESOVLRPH PRLEENFEFVKORRSTISPNFSFNGOLLOFESOVLRTS	SFISHFSLVKARRPSICPNSGFHEDLRIYGEGKESUKCDR S
	8	YLGCHKOSTNL DVL EFFGT YLGCRKDSTNL DVL GKYGT YLGSQKDVL NKDL MTQNGT YLGSCNIISSINL QGLQACGT YLGSGVHRSRKDNL DALGT	TLGSRTHHIRK YLGSRYHRSKC LLGSQDHRHDL YLGS a 1	3 1	HNDOYDIVKH Lkorydevkr Sdoryrevko I deoedevyd	LEERFEFVKO	SFISHESLYKNIR
	30		1 1 1			RYLHRTNRVK RYLHHKKRVR RYLHYNED	TGFLMSEQTS
	So	SOLDRO-PNSATISOGSPLSNSQPSFPV-ETLPFI DRELPSSATESOGSPVPSSQPAFPV-GILPYL GLEGKPAALLPMSLSQPCLPVPSVGLTRILPHL PAGALPPAGAENSNSOPRVPTVOGGGPVETLPYL PLSTSYPDSAESGCSSCSTPLYOGGGPVETLPFI	FVERSHIEFLUCUSSCHIPCHUUBGEVELLPR SERRLISGCGKPVNVSYRPRYDQGGPVEILPFI HVVEEVEPSSGGGCGYQDLSSDLQVGV-IKFWL P S q g IIP 1	120	DEARGKNCGVLYHCLAGISRSYTVTVAYLNDKLNL DEARSKKCGVLVHCLAGISRSYTVTVAYLNDKHNL DKAKLSSCQYIVHCLAGISRSATIAIAYIMKTHGY DSVNSGEDII UUCDAGISBSATICY AYITOSHDI	DSTKNAGGRYFVHCQQGJSRSATICLAYLARTNRVKLDENFEFVKQRRSTISPNFSFNGQLLQFESQVLAPH DAVKDCRGRV VHCQAGISRSATICLAYLAMKRVRLEENFEFVKQRRSTISPNFSFNGQLLQFESQVLATS DYVDEKCRVV VYLGAGISCOCDTTINAVI WYTWOCDI VEDENVIVNDDCANUCDAFCENGOI I OVECTI DCTDA	EERKKUGVVLVHCNAGVSRAPHIYIGFLMVSEQ1 # ak k g VlVHC AGISRsat! a%ln
	10	-PNSATISDG LPSSATESDG KPARLLPMSL KPARCAENSNS YPUSAESGCS	HIEPLULGS ISQCGKPYVN EPSSGGGCGY P	110	NCGVLVHCLA SCQVLVHCLA SCQVLVHCLA	GGRVFVHCQA RGRVL VHCQA GCKVI VHCGA	RKKKUGYVLVHCNAGVSRAPHI ak k g vlyhc rgisksat!
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		PYST1, MKP-7, NVH5 PRC1 HKP-1,	MKP-5, MKP-5, 0SP-4 Consensus		MKP-7, NVH5	素素 4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	DSP-4 Consensus

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Northern blot analysis



PB = Perior Blood SII = Simali Impostant Ox=Ovaries Co-Colon The Thymns Sp. Spiesn Pr - Prostate SM = Skel. Minsole Ki = KidmesTle-[leant • Pl = Placenta.